REMARKS

A. Request for Reconsideration

Applicant has carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the position that patentable subject matter is present. Applicant respectfully requests reconsideration of the Examiner's position based on the above Amendments to the Claims, the two Terminal Disclaimers, the Declaration of Mr. Yanagisawa, and the following remarks.

B. Claim Status

Claims 1-12 and 14-20 are pending in this Application.

Claims 1, 4, 7, and 10 have been amended herein to recite that the organic silver salt is an organic silver salt of an aliphatic carboxylic acid having 15 to 25 carbon atoms. Support for this Amendment can be found on page 70, line 8 of the Application.

Claims 1 and 4 have also been amended to refer to "the minimum density" as "a minimum density".

C. Double Patenting Rejections

Claims 1-12 and 14-20 had been rejected under the judicially created doctrine of obviousness-type double patenting based on claims 1-25 of U.S. Patent No. 6,699,649 in view of Yoshioka; and claims 1-9 of U.S. Patent No. 6,958,209 in view of Yoshioka.

In order to overcome both of these double patenting rejections, a terminal disclaimer for each of the patents, namely U.S. patent 6,669,649 and 6,958,209 is filed herewith.

Respectfully, the double patenting rejection has now been obviated.

D. Rejection under 103 based on Morita and Yoshioka

Claims 1-12 and 14-20 had been rejected as being unpatentable over a combination Morita and Yoshioka.

As noted by the Examiner, Morita is owned by the Assignee in this Application. Also, as noted by the Examiner, Morita has a publication date and a patenting date which are subsequent to the filing date of this application, this application being filed July 31, 2003 and Morita being published November 20, 2003, and patented October 25, 2005. In accordance with 35 U.S.C. 103 (c) Applicant makes the following statement:

> The subject matter of Morita and the claimed invention in this application were, at the time the claimed invention of this Application was made, owned by the same person or were subject to an obligation of assignment to the same person

In view of the foregoing it is respectfully submitted that Morita is not proper prior art under a 103 rejection.

E. Rejection based on the combination of either EP'101, Nishijima or PS'266 in view of Yoshioka; and the combination of Oya and Yoshioka.

Claims 1-12 and 14-20 had been rejected as being unpatentable over the combination of either EP'101, Nishijima or PS'266 in view of Yoshioka; and as being unpatentable over a combination of Oya and Yoshioka.

In Applicant's previous Response, a Declaration of Mr. Yanagisawa dated January 18, 2006 had been submitted to demonstrate the patentability of Applicant's claimed invention over the teachings of the cited references.

One of the criticisms made by the Examiner was that the Declaration was not commensurate in scope with the claims. Specifically, the Examiner had pointed to the fact that the Declaration uses silver salt of an aliphatic carboxylic acid, but the claims were not so limited. In order to respond to this criticism, all of the independent claims herein, namely claims 1, 4, 7, and 10 have been amended to recite that the silver salt is of an aliphatic carboxylic acid having 15 to 25 carbon atoms. The purpose of this amendment is to bring the claims in line with the Declaration and it is respectfully requested that the Examiner reconsider Applicant's argument as contained in its Response dated January 18, 2006 and, specifically, as contained in E 3 of the January 10, 2006 Response.

Furthermore, additional tests have been run and are reported herein by way of a Declaration of Mr. Yanagisawa. These current test results demonstrate the surprising unexpected characteristics of the present invention versus a composition that contained both the

compound of formulae (A-1) and (A-3). Specifically, material that falls within the scope of Morita was prepared in Sample 1 of Table 1 of Morita. As can be seen from the table attached to the Declaration, the material of the present invention is superior to material containing only a combination of formulae A-1 and A-3. Furthermore, it can be seen that the material of Morita did not have a coefficient of determination R^2 that fell within the claims. The material of Morita had a coefficient of determination of 0.894. The claims require a coefficient of determination of 0.998 to 1.000.

The Examiner will note that the Declaration of Mr. Yanagisawa is unexecuted. The Declaration data, however, was obtained from Mr. Yanagisawa and the original Declaration has been forwarded to Mr. Yanagisawa for execution. Applicant respectfully requests the Examiner to consider the Declaration in order to expedite prosecution of this Application. As soon as the executed Declaration has been received, it will be filed in this Application.

In view of the foregoing, Applicant has clearly demonstrated the patentability of the claims over the cited references.

F. Formal Rejections

Claims 1-6 had been rejected as being indefinite. Specifically, the Examiner pointed to no antecedent basis for the "minimum density". Claims 1-4 have been amended herein to change "the minimum density" to "a minimum density". Respectfully, the claims are no longer indefinite.

Claims 1-3 had been objected to as being substantially duplicative.

First, MPEP 706.03(k) states that when two claims in an application are duplicative it is proper after allowing one claim to object to the other claim. No claims have been indicated allowable herein and thus this objection is deemed to be premature at this time. Furthermore, it should be noted that both claims used different coordinating systems to define the regression line. Claims 1-3 use a regression line by plotting color coordinate u* and v*. Claims 4-6 refer to a regression line which is obtained by plotting the color coordinates a* and b*. These two systems are well known and well recognized as different, see attached article from the Handbook of Photographic Science and Engineering. These are different ways of plotting the regression line and it is respectfully submitted that Applicant is entitled to claims its invention in different manner, albeit, the same invention.

Finally, the Examiner criticizes the use of the term "minimum density" to be relative to the process. It is submitted that one of skill in the art clearly understands what the term "minimum density" is with respect to plotting the different regression lines using the color coordinates u*v*, and a*b*. It is respectfully submitted that the claims are definite.

G. Conclusion

In view of the foregoing it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account # 02-2275.

Respectfully submitted,
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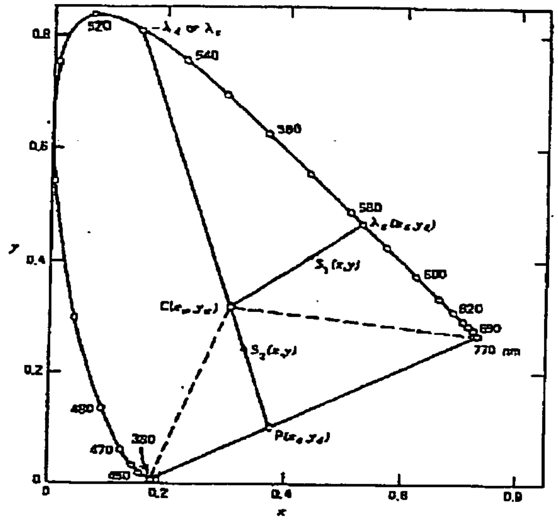

Figure 19.7 CIE 1931 xy chromaticity diagram showing dominant wavelength λ_d of color stimulus S_1, determined with respect to CIE illuminant C, and also showing complementary wavelength λ_c of color stimulus S_2

The choice of calculating p_c from the x or y values is governed by whichever provides the larger numerical value in the numerator of Eq.(19.13). Either form yields the same answer, but the larger numerator is preferred for high precision of specification.

(3) ***Colorimetric Purity:*** Another kind of purity is sometimes used instead of excitation purity. This is called *colorimetric purity*, p_c. It is defined as the ratio of the luminance of the spectral component to that of the sample in a matching mixture resulting from an additive combination of monochromatic light with a reference illuminant. This may be mathematically expressed as follows:

$$p_c = Y_d / Y = y_d \cdot p_e / y \qquad (19.14)$$

where Y_d is the luminance of the spectral component
Y is the luminance of the sample
y_d is the chromaticity coordinate of the spectral component
y is the chromaticity coordinate of the sample

Colorimetric purity is useful where combined chromatic and luminance information is required.

It used to be fairly common to convert the chromaticity into the corresponding dominant or complementary wavelength and the excitation or colorimetric purity, because these terms were considered more easily related to descriptions of color in ordinary language. In recent years, however, this practice has not been used much, and color stimulus specifications are now expressed predominantly in terms of chromaticity coordinates.

19.5 Uniform Color Spaces and Color Difference Formulas

The CIE tristimulus values predict the color match of two samples under the same condition. If the tristimulus values of two samples are not identical, it is assumed that the degree of difference in color, or *color difference*, is expressed by a Euclidean distance of the two colors in the three dimensional *XYZ* space. This is, however, a false assumption. The ratios of the perceived color difference to the Euclidean distance greatly depend on the tristimulus values of colors. To mediate this difficulty, the CIE recommends the use of one approximately uniform chromaticity scale (UCS) diagram, and two approximately uniform color spaces and associated color difference formulas. These were chosen from amongst several of similar chromaticity diagrams and color spaces to promote uniformity of practice.

The following formulas are all given in terms of the CIE 1931 standard colorimetric observer and the resultant coordinate system. However the same formulas also apply to the CIE supplementary standard colorimetric observer and the coordinate system.

19.5.1 CIE 1976 $u'v'$ Chromaticity Diagram

The following chromaticity diagram is used when color spacing perceptually more uniform than the xy chromaticity diagram is required. The chromaticity diagram is produced by plotting u', v' defined by:

$$u' = 4X / (X + 15Y + 3Z), v' = 9Y / (X + 15Y + 3Z)$$
$$= 4x / (-2x + 12y + 3), \quad = 9y / (-2x + 12y + 3) \qquad (19.15)$$

Figure 19.8 shows the $u'v'$ chromaticity diagram with u' as the abscissa and v' as the ordinate. The $u'v'$ chromaticity diagram is known to be more uniform than the xy chromaticity diagram for observation of specimens having negligibly different luminance.

19.5.2 CIE 1976 $L^*u^*v^*$ Color Space

The first approximately uniform color space is produced by plotting in rectangular coordinates the quantities L^*, u^* and v^* defined by:

$$L^* = 116 (Y / Y_n)^{1/3} - 16$$
$$u^* = 13L^* (u' - u_n') \qquad (19.16)$$
$$v^* = 13L^* (v' - v_n')$$

with the constraint that $Y / Y_n > 0.008856$. For values of Y / Y_n equal to or less than 0.008856, the following L^* formula is used,

$$L^* = 903.3\ Y / Y_n \qquad (19.17)$$

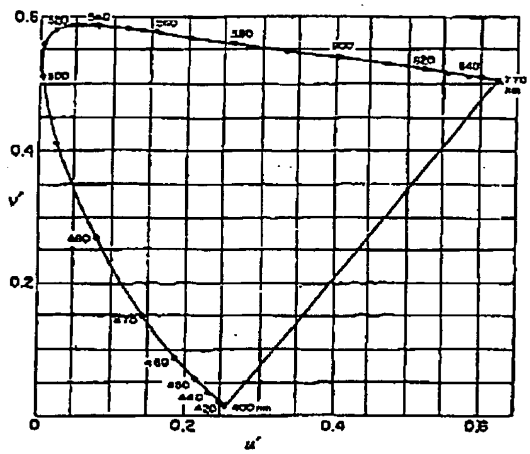

Figure 19.8 CIE 1976 u'v' chromaticity diagram.

In Eq. (19.16), the quantities u', v' and u_n', v_n' are calculated by use of Eq. (19.15) from the tristimulus values X, Y and Z of the color stimulus considered and from those X_n, Y_n and Z_n of the nominally white object-color stimulus.

The color difference ΔE_{uv}^* between two color stimuli, each given in terms of L^*, u^*, v^*, is calculated from:

$$\Delta E_{uv}^* = [(\Delta L^*)^2 + (\Delta u^*)^2 + (\Delta v^*)^2]^{1/2} \tag{19.18}$$

where ΔL^*, Δu^* and Δv^* are the difference between two color stimuli in the quantities L^*, u^* and v^*. The color space defined by Eq. (19.16) is called the CIE 1976 $L^*u^*v^*$ space. The color difference formula defined by Eq. (19.18) is called the CIE 1976 $L^*u^*v^*$ color difference formula. The letters CIELUV are used as an abbreviation of CIE 1976 $L^*u^*v^*$.

19.5.3 CIE 1976 $L^*a^*b^*$ Color Space

The second approximately uniform color space is produced by plotting in rectangular coordinates the quantities L^*, a^* and b^* defined by:

$$\begin{aligned} L^* &= 116\,(Y/Y_n)^{1/3} - 16 \\ a^* &= 500\,[(X/X_n)^{1/3} - (Y/Y_n)^{1/3}] \\ b^* &= 200\,[(Y/Y_n)^{1/3} - (Z/Z_n)^{1/3}] \end{aligned} \tag{19.19}$$

with the constraint that X/X_n, Y/Y_n and $Z/Z_n > 0.008856$. Here X, Y and Z are the tristimulus values of the color stimulus considered, and X_n, Y_n and Z_n are those of the nominally white object-color stimulus. The L^* function defining the lightness correlate is identical to the L^* function of the CIE 1976 $L^*u^*v^*$ space. Therefore, for values of Y/Y_n equal to or less than 0.008856, Eq. (19.17) applies. In calculating a^* and b^*, values of X/X_n, Y/Y_n and Z/Z_n less than 0.08856 may be included if each term in Eq. (19.19) is replaced as follows:

$$\begin{aligned} &(X/X_n)^{1/3} \text{ by } 7.787\,(X/X_n) + 16/116 \\ &(Y/Y_n)^{1/3} \text{ by } 7.787\,(Y/Y_n) + 16/116 \\ &(Z/Z_n)^{1/3} \text{ by } 7.787\,(Z/Z_n) + 16/116 \end{aligned} \tag{19.20}$$

The color difference ΔE_{ab}^* between two color stimuli, each given in terms of ΔL^*, Δa^* and Δb^* is calculated from:

$$\Delta E_{ab}^* = [(\Delta L^*)^2 + (\Delta a^*)^2 + (\Delta b^*)^2]^{1/2} \tag{19.21}$$

where ΔL^*, Δa^* and Δb^* are the difference between two color stimuli in the quantities L^*, a^* and b^*. The color space defined by Eq. (19.19) is called the CIE 1976 $L^*a^*b^*$ space. The color difference formula defined by Eq. (19.21) is called the CIE 1976 $L^*a^*b^*$ color difference formula. The letters CIELAB are used as an abbreviation of CIE 1976 $L^*a^*b^*$.

19.5.4 CIE 1976 Correlates of Perceived Attributes

When color-difference formulas are used in practice, it is often desirable to identify the components of the color differences in terms of perceived correlates, such as lightness, chroma, and hue. It is also often desirable to express color specifications in terms of such correlates. Either one of the two CIE 1976 uniform color spaces and associated color-difference formulas can be used to define appropriate correlates.

(1) ***Lightness:*** The quantity L^*, given in Eq. (19.16) or (19.17), serves as the correlate of lightness.

(2) ***Chroma and Saturation:*** The quantities C_{uv}^* and C_{ab}^* defined by:

$$\begin{aligned} C_{uv}^* &= [(u^*)^2 + (v^*)^2]^{1/2} \\ C_{ab}^* &= [(a^*)^2 + (b^*)^2]^{1/2} \end{aligned} \tag{19.22}$$

serve as *correlate of chroma*. The quantity s_{uv}^* defined by:

$$s_{uv}^* = C_{uv}^* / L^* \tag{19.23}$$

derived from C_{uv}^* and L^* in the CIELUV space can be used as correlate of saturation. In a series of object-color stimuli of constant chromaticity, but increasing (or decreasing) luminance factor, s_{uv}^* remains constant with a corresponding increase (or decrease) in C_{uv}^*. An equivalent relation for s_{uv}^* is as follows:

$$s_{uv}^* = 13\,[(u' - u_n')^2 + (v' - v_n')^2]^{1/2} \tag{19.24}$$

A similar correlate of saturation cannot be given for the CIELAB space.

(3) ***Hue Angles and Hue Differences:*** The quantities h_{uv} and h_{ab} obtained by:

$$h_{uv} = \arctan(v^*/u^*),\ h_{ab} = \arctan(b^*/a^*) \tag{19.25}$$

define hue angles which are useful quantities in specifying hue numerically. The quantities ΔH_{uv}^* and ΔH_{ab}^* are defined by:

$$\begin{aligned} \Delta H_{uv}^* &= [(\Delta E_{uv}^*)^2 - (\Delta L^*)^2 - (\Delta C_{uv}^*)^2]^{1/2} \\ \Delta H_{ab}^* &= [(\Delta E_{ab}^*)^2 - (\Delta L^*)^2 - (\Delta C_{ab}^*)^2]^{1/2} \end{aligned} \tag{19.26}$$

specify hue differences. ΔH^* is to be regarded as positive if indicating an increase in h, and negative if indicating a decrease in h. A quantity of hue difference is useful to describe a total color difference ΔE^* in terms of ΔL^*, ΔC^*, and ΔH^*.